**Homework 4B Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Midpoints Period: \_\_\_\_\_\_\_\_Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

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| 1. Find the coordinates of the midpoint of the segment with the given endpoints.   1. *R*(3, 1) and *S*(3, 7) 2. *V*(2, 4) and *W*(6, 6) | 2. Use the given endpoint *Y and* midpoint *M* to find the coordinates of the other endpoint *Z*.   1. *Y*(0, 5), *M*(3, 3) 2. *Y*(–l, –3), *M*(5, 9) |
| 3. Find the midpoint of the segment *QP*. | 4. Points *W*, *X*, *Y*, and *Z* are collinear. *WZ* = 40, *XZ* = 18, and *Y* is the midpoint of *XZ.* What is the length of *XY*?  W X Y Z |
| 5. Write the midpoint formula below. | 6. One endpoint of PQ is P(-5, 3). The midpoint of PQ is M(-1, 6). Find Q. |
| 7. Points *W*, *X*, *Y*, and *Z* are collinear. *WZ* = 52, *XZ* = 12, and *Y* is the midpoint of *XZ.* What is the length of *XY*?  W X Y Z | 8. A house and a school are 5.3 miles apart on the same straight road. The library is on the same road, halfway between the house and the school. Draw a sketch to represent the situation. Mark the locations of the house, school, and library. How far is the library from the house? |

**Mixed Review**

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| 9. Simplify : | 10. Find the square root of . |
| 11. Simplify:  Where *x* = -3 | 12. Simplify: |
| 13. What is the value of 3) when x =2 and y =5. | 14. What is the value of 3 when x =9 and  y = -4? |
| 15. Simplify: | 16. Simplify: |
| 17. Find the square root of . | 18. Find the square root of . |